

AN: V42C-06
TI: Active Deformation of Etna Volcano Combining IFSAR and GPS Data
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AB: The surface deformation of an active volcano is an important indicator of its eruptive state and its hazard potential. Mount Etna volcano in Sicily is a very active volcano with well documented eruption episodes. We will present the results of a study of Etna's recent activity combining interferograms from ERS-1/2 SAR data with displacement vectors from GPS data. Preliminary radar results indicate renewed inflation of the volcano since the end of the 1989-1993 eruptive phase. The dynamic deformation we observe is consistent with the observed activity of Etna: deflation accompanied the eruptive phase into 1993 with inflation commencing afterwards and continuing through 1995. From fall 1995 to summer 1996 inflation diminished significantly, coinciding with renewed activity of Etna. These observations derived from SAR and GPS will be compared with field observations of the volcano's effluence and numerical deformation models.
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